

**Work Order ID 60570**

Wednesday, July 14, 2010 9:20:00 AM

Page 1

Item ID: D3146-1

Accept

Setup Start

Revision ID:

Stop

Item Name: Bracket

Start Date: 7/14/2010 Start Qty: 6.00

Required Date: 7/22/2010 Req'd Qty: 6.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date: 10-7-14

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D3146

Rev B

100

0.00



BAND SAW

Bandsaw

Memo

0.00

Jeaspa Bandsaw

Cut blanks: 4.500" x 1.250" x 3.100" long Bar

110

0.00



HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

Machine as per Folio FA419 and Dwg D3146 Identify as D3146-1

120

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 60570

Wednesday, July 14, 2010 9:20:00 AM

Page 2

Item ID: D3146-1

Accept

Setup Start

Revision ID:

Item Name: Bracket

Stop

Start Date: 7/14/2010 Start Qty: 6.00

Required Date: 7/22/2010 Req'd Qty: 6.00

Cust Item ID:

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start

Stop

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 QC Quality Control	QC8- Inspect parts - second check  Memo	0.00  0.00				6			
140 Small Fab Small Fab Small Fab	Small Fab  Memo Deburr and Tumble	0.00  0.00							
150 HandFinish Hand Finishing	Chemical Conversion Coat per QSI005 4.1  Memo	0.00  0.00							

DIP 10/6/21

B 10-7-22

6 PR 10-7-22

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 60570

Wednesday, July 14, 2010 9:20:00 AM



Page 3

Item ID: D3146-1

Accept



Setup Start



Revision ID:

Item Name: Bracket

Stop



Start Date: 7/14/2010 Start Qty: 6.00



Cust Item ID:

Required Date: 7/22/2010 Req'd Qty: 6.00

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

160



Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

M 114841

Memo

0.00

START TIME:

1:35

OVEN TEMPERATURE:

320° FINISH TIME:

205

6 Bl 10-7-22

170



QC

Quality Control

QC3- Inspect part completeness to step on W/O

0.00

FINISH

Memo

0.00

Inspect work to Step 9

10-7-23 SP

180



Packaging

Packaging

Identify as per dwg & Stock Location:

30

0.00

Memo

0.00

10-7-23 SP @

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 60570**

Wednesday, July 14, 2010 9:20:00 AM



Page 4

Item ID: D3146-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Bracket

Start Date: 7/14/2010 Start Qty: 6.00



Cust Item ID:

Required Date: 7/22/2010 Req'd Qty: 6.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run

Start



Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

190

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

10/07/26 *[Signature]*  
CMF  
10-7-23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Wednesday, July 14, 2010 9:20:10 AM

Page 1

Work Order ID: 60570

Parent Item: D3146-1

Parent Item Name: Bracket



Start Date: 7/14/2010

Required Date: 7/22/2010

Start Qty: 6.00

Required Qty: 6.00

Comments: IPP A 04.04.28 New issue KJ/JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M6061T6B1.250X04.50 0		Purchased	No			100	f	27.2366	0.2792	1.763368			



6061-T6 Bar 1.25 X 4.50



Location

Loc Qty

Loc Code

MAT10  
112628

27.2366  
27.2366

1.7633 amk 10/02/17

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

DART AEROSPACE LTD		Work Order:	40570
Description: Bracket		Part Number:	D3146-1
Inspection Dwg: D3146	Rev: B	Page 1 of 1	

### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3.000	+/-0.010	3.002	✓			
2.000	+/-0.010	1.999	✓			
0.230	+/-0.010	.235	✓			
0.425	+/-0.010	.425	✓			
3.420	+/-0.010	3.425	✓			
2.535	+/-0.010	2.534	✓			
0.221	+/-0.010	.224	✓			
0.391	+/-0.010	.383	✓			
0.221	+/-0.010	.214	✓			
0.850	+/-0.010	.853	✓			
R0.350	+/-0.010	.350	✓			
0.850	+/-0.010	.852	✓			
0.221	+/-0.010	.214	✓			
0.491	+/-0.010	.482	✓			
0.125	+/-0.010	.119	✓			
1.025	+/-0.010	1.018	✓			
R0.375	+/-0.010	.375	✓			
28°	+/-0.5°	28.0	✓			
0.276	+/-0.010	.271	✓			
0.925	+/-0.010	.927	✓			
R0.125	+/-0.010	.125	✓			
4.345	+/-0.010	4.345	✓			
0.125	+/-0.010	.127	✓			
93°	+/-0.5°	93°	✓			
R0.125	+/-0.010	.125	✓			
Grain Direction	N/A					

Measured by: <i>SP</i>	Audited by: <i>DJP</i>	Prototype Approval:	N/A
Date: 10/02/21	Date: 10/02/21	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	04.06.22	New Issue	KJ/JLM	
B	07.06.13	Dimensions updated per Dwg Rev B	KJ/EC <i>EF</i>	<i>BE</i>

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

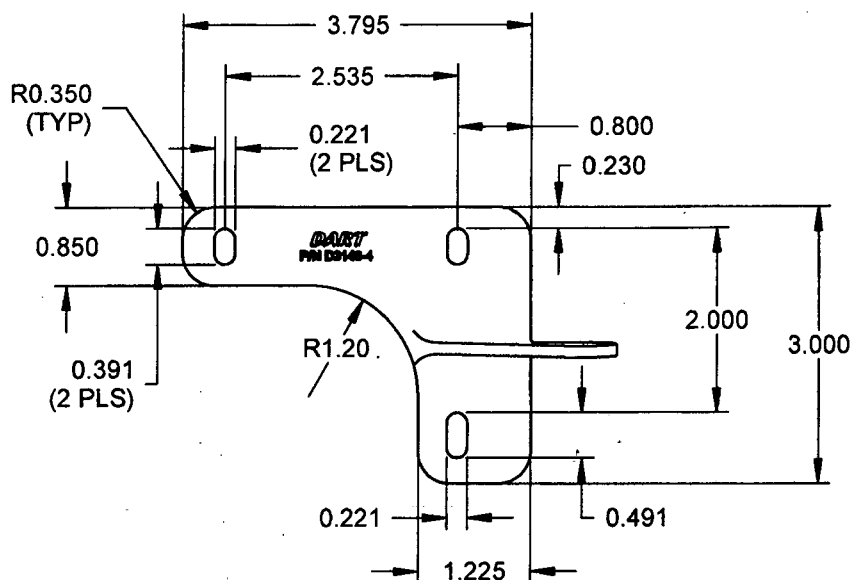
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

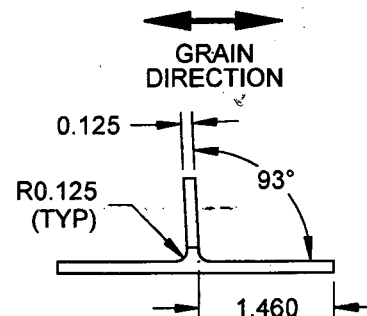
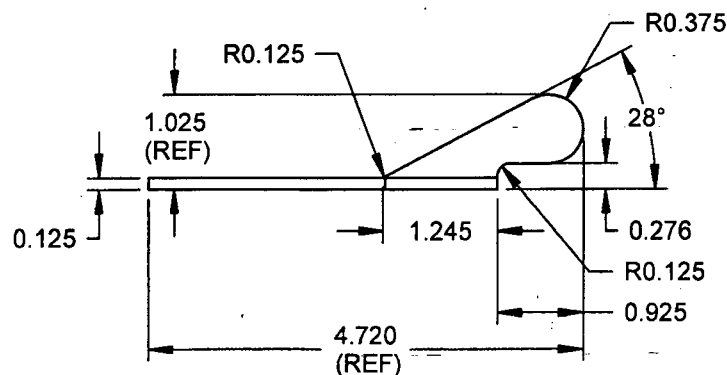
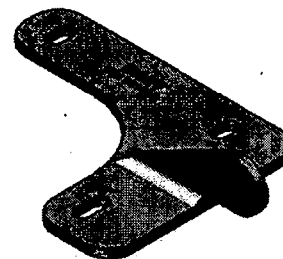
**NOTE:** Date & initial all entries

**DART**

DESIGN #	DRAWN BY CB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED LE	APPROVED #	DRAWING NO. <b>D3146</b>	REV. B SHEET 2 OF 2
DATE <b>07.03.28</b>		TITLE <b>BRACKET</b>	SCALE 1:2

**RELEASED**

07.06.04

**D3146-4 BRACKET****NOTES:**

- 1) MATERIAL: 6061-T6/T651 (QQ-A-200/8 OR QQ-A-225/8) BAR (REF. DART SPEC. M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N AND LOGO AS SHOWN

**COPYRIGHT © 2002 BY DART AEROSPACE LTD**

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

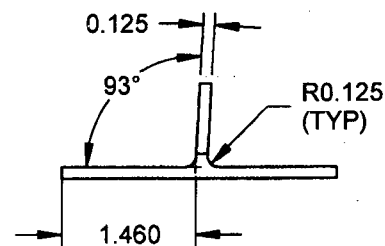
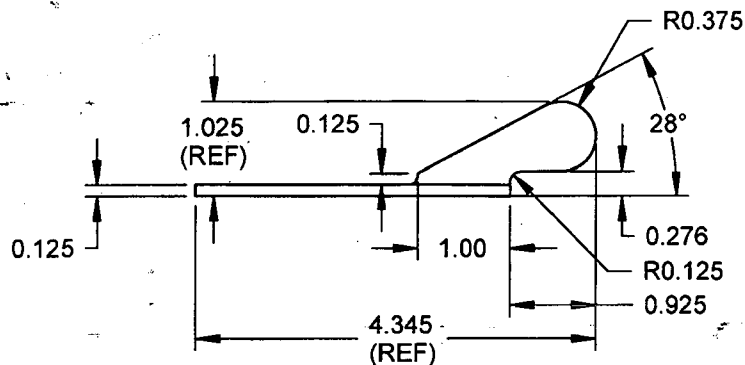
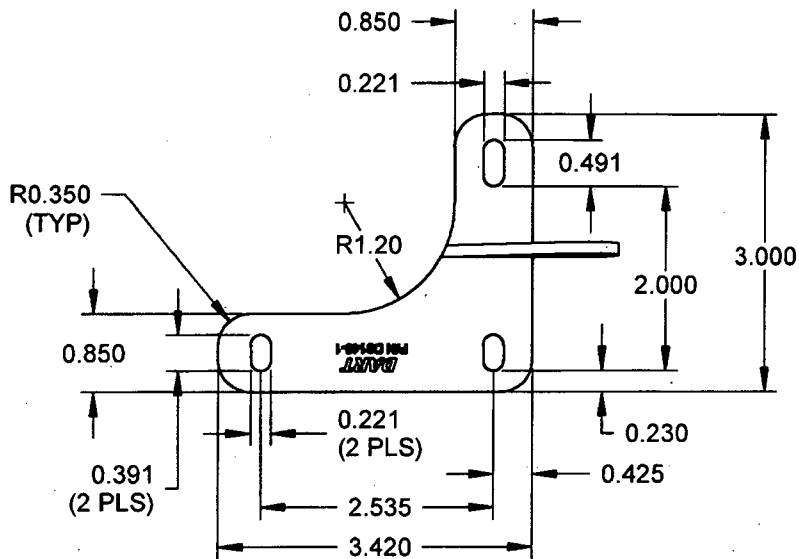
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**DART**

DESIGN #	DRAWN BY CB	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
CHECKED LE	APPROVED #	DRAWING NO. <b>D3146</b>	REV. B SHEET 1 OF 2
DATE <b>07.03.28</b>	TITLE <b>BRACKET</b>		SCALE 1:2
REV	DATE	DESCRIPTION	
A	02.04.25	NEW ISSUE	
B	07.03.28	ADD -4; ROTATED LOGO AND P/N	

**RELEASED**

07.06.04 #



STOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER

NO. 60579

GRAIN  
DIRECTION

**D3146-1 BRACKET SHOWN. REPLACES PREMIER P/N B30-23000-27**  
**(D3146-2 BRACKET OPPOSITE. REPLACES PREMIER P/N B30-23000-28)**

**NOTES:**

- 1) MATERIAL: 6061-T6/T651 (QQ-A-200/8 OR QQ-A-225/8) BAR (REF. DART SPEC. M6061T6B)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GLOSS WHITE (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 6) ENGRAVE DART P/N AND LOGO AS SHOWN

**COPYRIGHT © 2002 BY DART AEROSPACE LTD**

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

W/O:			WORK ORDER CHANGES					
DATE	STEP		PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:			WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP		Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
				Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries